Measurement uncertainty arising from sampling: A guide to methods and approaches

Second Edition (2019)

ERRATA

The following pages provide editorial corrections to the corresponding elements of the above Guide. Amendments are indicated in colour.

Errata Version	Issue date	Remarks
1.3	2022-11-21	Update to URL, Bibliography, reference [8]
1.2	2020-03-04	Correction to Working Group member list
1.1	2020-01-09	Corrections to Table A3.7 and dependent values in Table A3.4 and summary on p. 60

Title page – Working group composition amended as follows:

Add Eurachem member:

Silke Richter BAM, Germany

Page 57: Table A3.4 amended as follows:

Table A3.4: Relative expanded uncertainty (%, coverage factor 2) for analysis, sampling and between-target (between wells) as obtained during validation using range calculations

Range calculations	Analyses	Sampling	Between-target
Dissolved iron	1.8%	10.5%	70%

Page 59: Table A3.7 amended as follows:

Table A3.7: Results and range calculations for the validation study, dissolved iron, basic data in bold, symbols used to describe calculations only (*T*: target, *S*: sample, *A*: analysis, *R*: absolute differences)

Well	**S1A1**	**S1A2**	**S2A1**	**S2A2**	**R1**	**R2**	**R_{S+A}**	**Average**
	mg l^{-1}	**mg l^{-1}**	**mg l^{-1}**	**mg l^{-1}**	**mg l^{-1}**	**mg l^{-1}**	**mg l^{-1}**	**mg l^{-1}**
99.474	0.815	0.834	0.912	0.893	0.019	0.019	0.078	0.86
99.468	1.8	1.83	1.94	1.93	0.030	0.010	0.12	1.88
99.469	1.69	1.68	1.79	1.77	0.010	0.020	0.095	1.73
99.916	2.62	2.61	2.83	2.84	0.010	0.010	0.22	2.73
99.327	1.66	1.63	1.58	1.59	0.030	0.010	0.06	1.62
99.371	1.52	1.53	1.47	1.50	0.010	0.030	0.04	1.51
				Average	0.018	0.017	0.102	1.719
							Stand. dev	0.604
Analysis	$R_A = (\overline{R_1} + \overline{R_2})/2$		R_A =	0.017	$s_A = R_A/1.128$		s_A =	0.015
							CV_A =	0.89 %
Sampling	$s_{S+A} = \overline{R_{S+A}}/1.128$		S_{S+A} =	0.091	$S_S = \sqrt{S_{S+A}{}^2 - \left(\frac{S_A}{\sqrt{2}}\right)^2}$		s_S =	0.090
							CV_S =	5.23 %
Between target			S_{T+S+A} =	0.604	$S_T = \sqrt{S_{T+S+A}{}^2 - \left(\frac{S_{S+A}}{\sqrt{2}}\right)^2}$		s_T =	0.601
							CV_T =	35 %

Cont/…

Page 60: Summary table amended as follows:

Dissolved iron in groundwater	**Expanded uncertainty, coverage factor of 2**			**Between-target variability**
	Sampling	**Analysis**	**Measurement**	**(*k* = 2)**
Validation	11 %	1.9 %	11 %	70 %[1]
Quality control	3.6%	2.5%	4.4 %	9.9 %[2]
[1]In the validation study, between-target variability was between wells [2]In the quality control, between-target variability was between sampling occasions				

Page 106: Bibliography

Reference 8: Nordtest (2007) Uncertainty from sampling. A Nordtest handbook for sampling planners and sampling quality assurance and uncertainty estimation. NT tec 604/TR604 :

Amend URL

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to read

www.nordtest.info

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